



# PLANNING COMMISSION REPORT

MEETING DATE: December 1, 2004

ITEM NO. \_\_\_\_\_ GOAL: Coordinate Planning to Balance Infrastructure

## SUBJECT

### **Paradise Valley Arsenic Removal Facility - 33-UP-2004**

## REQUEST

Request a conditional use permit for public utility buildings, structures or appurtenances thereto for public service uses on 8 +/- acres located at the 6000 block of N Miller (Cattletrack) Road with Single Family Residential District (R1-43) and Special Campus District, Historic Property (S-C HP) zoning.

### **Key Items for Consideration:**

- This will allow Arizona American Water Company to comply with the Federal Government's water quality mandate.
- New structures will be setback a minimum of 100 feet from Miller/Cattletrack Road.
- Traffic impacts and other service impacts are negligible.
- There have been neighborhood concerns regarding this facility.

## OWNER

Arizona American Water Company  
623-445-2403

## APPLICANT CONTACT

John Berry  
Beus Gilbert P L L C  
480-385-2727

## LOCATION

6000 Block of N Miller (Cattletrack) Road



## BACKGROUND

### **Zoning.**

The north 6 acres of the site is zoned Single Family Residential District (R1-43) and the south 2 acres is zoned Special Campus District, Historic Property (S-C HP). The property currently contains utility buildings, wells and tanks as a pre-existing nonconforming use. Section 1.1310 of the Zoning Ordinance allows continuance and change of nonconforming uses subject to a Use Permit. The R1-43 zoning district also allows for utility buildings upon approval of a conditional use permit.

### **General Plan.**

The General Plan Land Use Element designates the property as Rural Neighborhoods. This category includes areas of relatively large lot single-family neighborhoods. Densities in Rural Neighborhoods are usually one house per one acre (or more) of land.

The General Plan Character and Design Element designates the property as

Rural Character Type. These areas generally contain relatively low-density and large lot development, provide a rural lifestyle that includes building low profile structures, discouraging walls, and limiting road access. The site is also located along the Cultural/Institutional or Public Use land use designation boundary, which relates to the Cattletrack arts campus to the south and the existing Arizona American Water Company properties.

**Context.**

This property is located at the 6000 block of Miller/Cattletrack Road, and currently contains utility buildings and tanks along with much open space. This property is located within an established rural enclave. An existing single family home directly abuts this property along the west and south sides of the proposal on Cattletrack Road. To the east is the Arizona canal and further to the east are single-family homes. Vacant land lies to the north and single-family homes exist to the west across Miller/Cattletrack Road. To the south is an existing 12-acre Arts Campus that has 2 houses, a shop building, and studio buildings.

APPLICANT'S  
PROPOSAL

**Goal/Purpose of Request.**

This is a request for a conditional use permit to place an arsenic treatment facility (utility buildings and tanks) at the existing Arizona American Water Company's existing water well site. The purpose of the arsenic treatment facility is to comply with the Federal Government's arsenic reduction requirements and new safe drinking water standards. The ground water that is being pumped from wells at this location is part of the Water District's potable water system that services some residents of Scottsdale and Paradise Valley.

The facility will be in operation 24 hours per day, 7 days a week, and will be staffed with two operators, one customer service representative, and occasional maintenance personnel. The site will house a customer service representative within the main building along Cattletrack with low customer trips anticipated to this facility.

**Development information.**

- *Parcel Size:* 8 acres
- *Existing Use:* Utility buildings and tanks
- *Propose Buildings:* 3 new buildings  
2 new reservoir tanks  
Clarifier structures
- *Building Height Allowed:* 30 feet in R1-43, 38 feet in S-C
- *Proposed Structure Heights:* 18 to 28 feet
- *Building Floor Area:* 16,000 square feet of facility space
- *Setbacks:* Approx. 100 feet from existing  
Miller/Cattletrack Road

IMPACT ANALYSIS

**Use Permit Criteria.**

Conditional use permits, which may be revocable, conditional, or valid for a

specified time period, may be granted only when expressly permitted after the Planning Commission has made a recommendation and the City Council has found as follows:

- A. That the granting of such conditional use permit will not be materially detrimental to the public health, safety or welfare. In reaching this conclusion, the Planning Commission and the City Council's consideration shall include, but not be limited to, the following factors:
1. Damage or nuisance arising from noise, smoke, odor, dust, vibration or illumination.
    - ***Facility operations will be conducted indoors, including fully enclosed pump rooms.***
    - ***The filtration system does not generate odor as a byproduct, and the chemical storage facilities will be fully enclosed.***
    - ***There are not anticipated nuisances arising from dust, vibration, or illumination.***
  2. Impact on surrounding areas resulting from an unusual volume or character of traffic.
    - ***Miller/Cattletrack Road at this location is classified as a minor collector, and is constructed to two lanes, one lane each direction, with turn lanes at its intersections with McDonald Drive and Lincoln Drive. The intersection of Cattletrack and McDonald Drive is signalized.***
    - ***Daily traffic volume is approximately 1,850 vehicles, and minor collector streets are typically designed to accommodate traffic volumes greater than 5,000 vehicles per day.***
    - ***The proposed utility building is anticipated to generate 31 daily trips and will not exceed the capacities of the existing streets. Eighteen parking spaces will be provided to accommodate the limited personnel and customers anticipated for this facility.***
  3. There are no other factors associated with this project that will be materially detrimental to the public.
    - ***The facility proposes setbacks and internalizing operations within buildings so as not to negatively impact the surrounding single-family neighborhoods and arts campus.***
- B. The characteristics of the proposed conditional use are reasonably compatible with the types of uses permitted in the surrounding areas.
  - ***There do exist utility buildings and tank structures already on the site, a canal adjacent to the site to the east, and an arts campus to the south. The facility proposes setbacks of over 150 feet from single-family neighborhoods, and will not exceed the building height limits of the surrounding residential districts.***
- C. The additional conditions specified in Section 1.403, as applicable, have been satisfied.
  - ***There are no additional conditions for utility buildings.***

**Police/Fire.**

The facility will have a fire suppression system and will be privately secured, and is not expected to impact police or fire services. The nearest fire station is located within a mile of this site at 7339 E. McDonald Drive.

**Community Involvement.**

Surrounding property owners have been notified, the site has been posted, and the applicant has held neighborhood meetings regarding this proposal. Concerns were raised regarding the importance of maintaining the rural character of the property with open space and architectural character, and that all new facilities need to mitigate noise. In addition to general inquiries, staff has received verbal comments in opposition to the proposal, citing concerns that the applicant has other property that may be more appropriate for this facility. The applicant has indicated operations will be conducted indoors to prevent noises and odors, and that this is the only location large enough for the proposed facility. The applicant is holding an open house the week of November 22, 2004 and Staff will provide an update of this outreach in a separate correspondence or at the public hearing.

**Community Impact.**

All operations will be conducted indoors, including fully enclosed pump rooms and chemical storage facilities. New structures will be setback a minimum of 100 feet from Miller/Cattletrack Road, uses existing vegetation to buffer the proposed improvements to the abutting single family home and arts campus and is 150 feet from the remainder of the single-family neighborhoods. Traffic impacts and other service impacts are negligible.

STAFF  
RECOMMENDATION

**Recommended Approach:**

Staff recommends approval, subject to the attached stipulations.

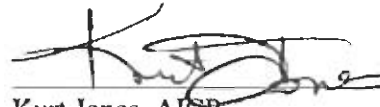
RESPONSIBLE  
DEPT(S)

**Planning and Development Services Department**  
Current Planning Services

STAFF CONTACT(S)

Tim Curtis  
Project Coordination Manager  
480-312-4210  
E-mail: tcurtis@ScottsdaleAZ.gov

**APPROVED BY**

  
\_\_\_\_\_  
Tim Curtis  
Report Author  
\_\_\_\_\_  
Kurt Jones, AICP  
Director, Current Planning

**ATTACHMENTS**

1. Applicant's Narrative
2. Context Aerial
- 2A. Aerial Close-Up
3. Land Use Map
4. Zoning Map
5. Stipulations
6. Additional Information
7. Citizen Involvement
8. City Notification Map
9. Site Plan

## PLAN OF OPERATION

### PROJECT BACKGROUND

The water supply for Arizona American Water's (AAW) Paradise Valley District is distributed through the Miller Road Booster Station (MRBS), which is located east of Cattletrack Road (Miller Road) and approximately a quarter mile north of McDonald Drive. The Paradise Valley District's arsenic removal facilities will be constructed and operated at this location. The site, owned by AAW, consists of five parcels that comprise approximately 8 acres of land. Additional detail on these parcels is summarized below:

Parcel Identifier	Parcel No.	Address	Parcel Size, sf	Current Zoning	Proposed Zoning
1	174-13-931	6237 N. Miller Road	134,992	R1-43	No Change
2	174-13-932	6223 N. Miller Road	69,696	R1-43	No Change
3	174-13-934	6215 N. Miller Road	101,495	R1-43 HP	No Change
4	174-13-935	6195 N. Miller Road	39,204	R1-43 HP	No Change

The Paradise Valley Arsenic Removal Facility (PVARF) will be situated on the south side of the property (Parcel 2, Parcel 3, Parcel 4, and a portion of Parcel 1) and will be constructed over approximately 5 acres of the site.

The groundwater for this district is provided by seven wells: three of which are located on the MRBS property and the remaining wells are located within 2-miles of the site. The groundwater from these seven wells will be treated at the PVARF with provisions for the addition of another well in the future. The facilities necessary for treatment, storage and distribution of water include new filtration vessels, treatment chemical storage and feed facilities, backwash clarification structures, finished water reservoirs, booster pumps, and residual solids thickening and dewatering. New administration, customer service, laboratory, and Supervisory Control and Data Acquisition monitoring facilities will be included at part of the project.

### OPERATING SCHEDULE

During the course of construction, the MRBS will remain fully operational and accessible in order to maintain water service to AAW's customers in this area. Shutdowns of individual facilities will occur only as needed to allow for completion of pipeline interconnections or other required modifications.

In order to provide continuous water service to the surrounding communities, the PVARF will be in operation 24 hours per day, 7 days per week. The plant will be designed for fully automatic, unattended operation. The plant will be staffed with approximately two operators and occasional maintenance personnel reporting on a daily basis with a flexible schedule. It is likely that their hours on site will be between 7 a.m. to 5 p.m.

In addition to the plant operators and maintenance personnel, the facility will also be staffed with at least one customer service representative. The following table summarizes the anticipated visits to the

facility by AAW's personnel and customers. The hours of operation for the customer service center will be 8 a.m. to 5 p.m.

Type	Trip Frequency	Days Per Week	Vehicle	Trips Per Month	Trips per Workday
Customer	3/day	5	Passenger	60.0	3.0
Employees	20/day	5	Passenger	400.0	20.0
Plant Operators	4/day	7	Passenger	112.0	4.0
Distribution Crews	4/day	5	Single Unit Truck	80.0	4.0
Solids Hauling	1/week		WB-50	4	0.14
Chemical Delivery Ferric	1/month		WB-50	1	0.04
Chemical Delivery Caustic	2/month		WB-50	2	0.07
Chemical Delivery Hypochlorite	3/month		WB-50	3	0.11
Chemical Delivery Polymer	1/month		Single Unit Truck	1	0.04
<b>Total</b>					<b>31</b>

#### OUTDOOR OPERATIONS

The majority of the treatment facility will be housed within buildings that are designed to mirror the architectural characteristics of the surrounding neighborhood. The facilities that will not be located within a structure include the backwash clarifiers and storage reservoirs.

The backwash clarifiers will consist of square concrete structures that extend approximately 3 ½ feet above the finished grade. The clarifiers will be covered. The operation of the clarifiers is completely automated. Two new storage reservoirs will be constructed to replace three existing reservoirs at this site. The storage reservoirs will be used to house the treated water prior to distribution. The reservoirs consist of welded steel tanks, which will be painted to blend with the surrounding community. The overall height of the reservoirs is 28 feet which is comparable to the existing reservoirs at the site. The operation of these facilities is also automated.

The facility will also provide parking for the customers and employees. The parking will be located behind a gated wall.

## PROJECT NARRATIVE

### PROJECT BACKGROUND

The United States Environmental Protection Agency (USEPA) has lowered the Arsenic Maximum Contaminant Level (MCL) from 50 parts per billion (ppb) to 10 ppb. All community water systems, such as that operated by Arizona American Water (AAW), are required to comply with the new Arsenic standard by January 2006. To comply with the USEPA mandate, AAW proposes to construct a new 19.3 mgd treatment facility using the coagulation-filtration process to remove naturally occurring arsenic from groundwater. This facility will be used to treat groundwater used to supply AAW's Paradise Valley District.

### SITE DESCRIPTION

The water supply for AAW's Paradise Valley District is distributed through the Miller Road Booster Station (MRBS), which is located east of Cattletrack Road (Miller Road) and approximately a quarter mile north of McDonald Drive. The MRBS site is the proposed location for the Paradise Valley District's arsenic removal facilities. The site, owned by AAW, consists of five parcels that comprise approximately 8 acres of land. Additional detail on these parcels is summarized below:

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The groundwater for this district is provided by seven wells: three of which are located on the MRBS property and the remaining wells are located within 2-miles of the site. The groundwater from these seven wells will be treated at this site with provisions for the addition of another well in the future. The facilities necessary for treatment, storage and distribution of water include new filtration vessels, treatment chemical storage and feed facilities, backwash clarification structures, finished water reservoirs, booster pumps, and residual solids thickening and dewatering. New administration, customer service, laboratory, and Supervisory Control and Data Acquisition monitoring facilities will be included as part of the project.

### COMMUNITY INVOLVEMENT

AAW has involved the surrounding community in the planning for this project by holding one-on-one meetings with the adjacent property owners and an Open House meeting. Two one-on-one meetings were held with a total of five neighborhood participants. Four citizens attended the Open House meeting. The attendees of these meetings did not voice opposition to the project. They did however



indicate the importance of maintaining the rural character of the property. The neighbors also stated specific considerations which are discussed in the meeting notes and addressed under Project Aesthetics. The outcome of these meetings is detailed in the Citizen Notification and Public Involvement Report included with this Rezoning Application. AAW plans to hold an additional Open House meeting prior to the Planning and Zoning Commission Hearing.

### **PROJECT AESTHETICS**

During the public involvement meetings, the citizens indicated various issues of importance regarding the PVARF that they would like to have considered during the facility design. These issues included impacts on the surrounding community due to noise, odor, traffic and architecture. Each item is discussed in detail in the following paragraphs.

### **SETBACKS**

The required setbacks will be provided from the front, side and rear property boundaries in accordance with the R1-43 zoning requirements (front = 40 feet from property line, side = 20 feet, and rear = 35 feet). The location of the Customer Service Center located along Cattletrack Road will be located an additional 60 feet from the property line providing a total front yard setback of 100 feet.

### **NOISE**

Currently, the well and distributive pumps along with associated valves and instrumentation at the MRBS are located outside. Several neighbors indicated that they can hear the pumps starting. They indicated that the future facilities should have provisions to mitigate noise impacts on the surrounding community. The proposed PVARF will provide fully-enclosed pump rooms which will address the noise impacts expressed by the neighbors.

### **ODOR**

The filtration process used to remove arsenic from the groundwater does not generate odor as a byproduct. The chemical storage and feed facilities that can produce gases under high temperature conditions will be enclosed in an air-conditioned building. This information was discussed with the citizens during the Open House meeting.

### **TRAFFIC**

Cattletrack Road (Miller Road alignment) is classified as a minor collector between McDonald Drive and Lincoln Drive. It is not identified as a major street on the City's Streets Master Plan. Cattletrack consists of two lanes, one lane in each direction. The intersection of Cattletrack and McDonald Drive has a traffic signal.

A traffic study conducted by Scottsdale Engineering & Associates, Inc. indicated that the daily traffic volume along Cattletrack Road (Miller Road alignment) was 1,836 vehicles. The average speed of the vehicles measured was 33 miles per hour (mph); the 85<sup>th</sup> percentile speed was 40 mph. The study indicates that these volumes and speeds are consistent with a local collector street. Typically, minor collector streets are designed to accommodate traffic volumes of at least 5,000 vehicles per day. There are residential driveways along Cattletrack which are limited in number due to the large lot sizes present in this area.

The traffic volume due to the PVARF will show a modest increase over the current operations due to increased operator attendance at the site, bulk chemical deliveries, and liquid sludge hauling. The estimated traffic volume is shown in the following table:

Type	Trip Frequency	Days Per Week	Vehicle	Trips Per Month	Trips per Workday
Customer	3/day	5	Passenger	60.0	3.0
Employees	20/day	5	Passenger	400.0	20.0
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A WB-50 vehicle (large semi-trailer combination) will be used for the turning radii and geometric layout of plant drives. Plant drives will be 20 feet wide and paved with asphaltic concrete except in the chemical unloading area, which will be concrete. Turning radii will be a minimum of 25 feet on the inside.

#### ARCHITECTURE

The AAW property is located within an area that maintains a rural character with lots of 35,000 square feet or greater and large setbacks. The properties to the south provide a meandering pedestrian pathway along the street frontage.

The character of the surrounding community will be taken into consideration during the design the buildings and facility fencing to create an environment that interacts with the surrounding community. The outcome of the neighborhood meetings indicated that the facility should maintain a rural character, and the materials of construction should mirror the color and consistency found in the area. AAW has subcontracted Michael Willis Architects to design the buildings and surrounding fence. MWA is participating in the community involvement process to understand and incorporate the architectural needs of this community.

The facility will be setback from the roadway to allow for the open space along the street frontage to be maintained. Although the facility will be fenced, the fence will also be setback from Cattletrack. In addition, the fence design will provide variations in materials of construction and landscaping to blend this structure with the surrounding properties.

McCloskey Peltz will act as the Landscape Architect for the project and are also involved in the public involvement process. There are many large mesquite trees on the eastern boundary of the project site that AAW will maintain through the construction process.

## USE PERMIT NARRATIVE

### PROJECT BACKGROUND

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### PROPERTY ZONING

AAW intends to use Parcel Nos. 2, 3, 4, and a portion of Parcel 1 to construct an arsenic removal facility. The facility will be used to remove naturally occurring arsenic from the groundwater prior to distributing this water supply to their customers in this area.

Originally, all four parcels held the R1-43 zoning classification. The property owner to the south, Janie Ellis, decided to pursue a Special Campus, Historic Property (S-C HP) designation for her property. At

the time, the City ordinance for this designation required that at least 12 acres be available to qualify for the designation. In addition, the ordinance allowed the attachment of adjacent property to obtain the required 12 acres. AAW was consulted by Ms. Ellis during this process, and agreed that the adjacent parcels could be used for this purpose. There was no indication at the time that the S-C HP designation would restrict AAW's use of their property.

The R1-43 zoning supports the conditional use of the property for "public utility buildings, structures or appurtenances thereto for public service uses.



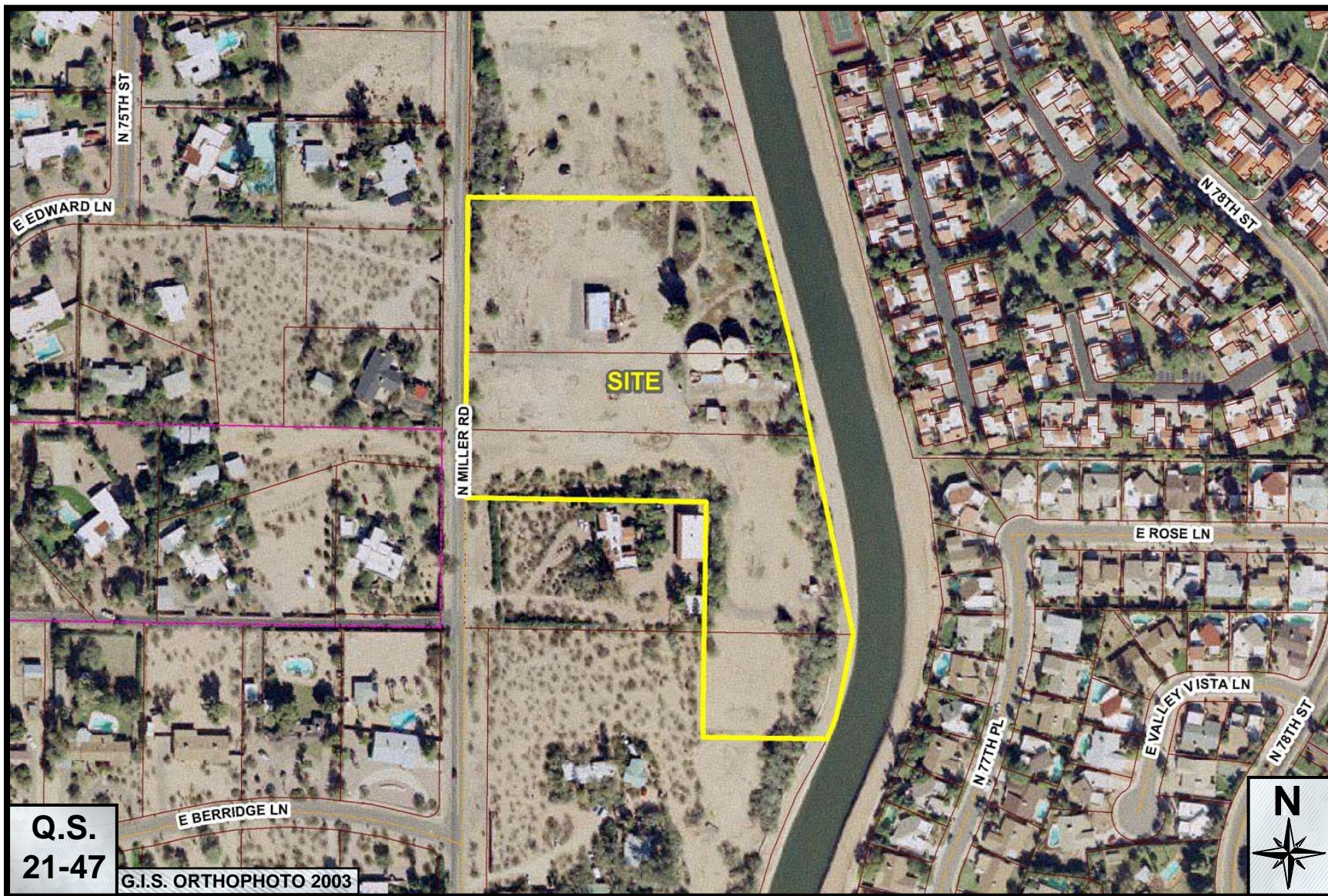


PV Arsenic Removal Facility

**33-UP-2004**

ATTACHMENT #2



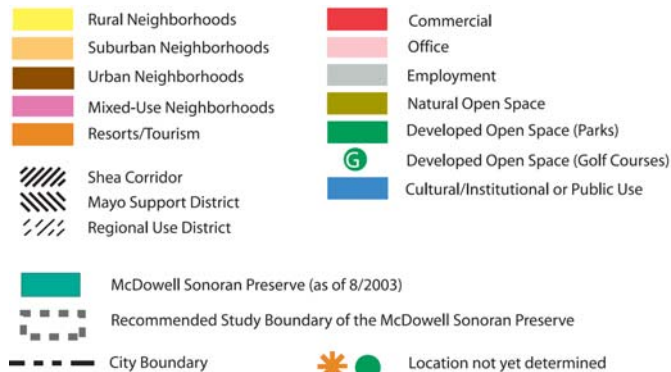
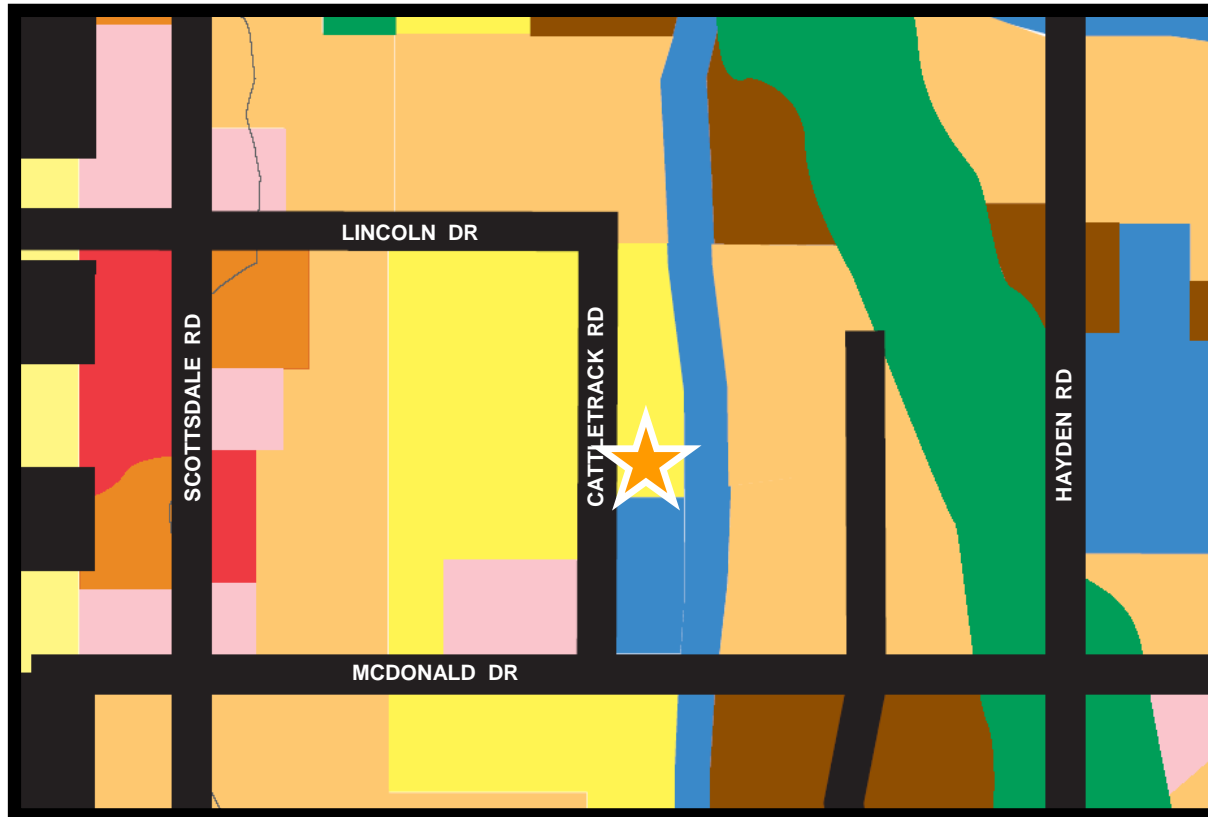


PV Arsenic Removal Facility

**33-UP-2004**

ATTACHMENT #2A

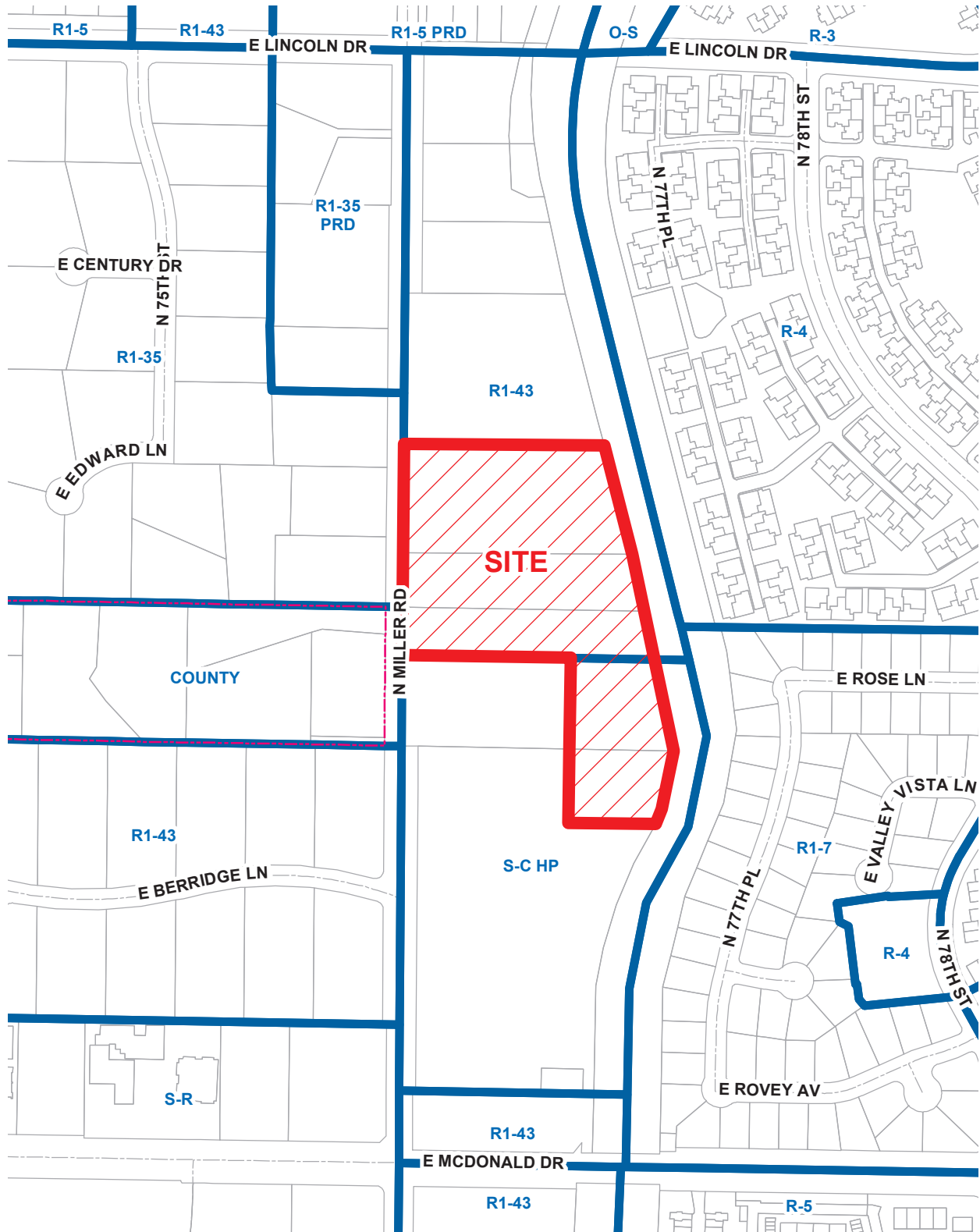
# General Plan (Existing)



**33-UP-2004**  
ATTACHMENT #3

Adopted by City Council October 30, 2001  
Ratified by Scottsdale voters March 12, 2002  
revised to show McDowell Sonoran Preserve as of May 2004  
revised to reflect General Plan amendments through June 2004





33-UP-2004

ATTACHMENT #4



## STIPULATIONS FOR CASE 33-UP-2004

### PLANNING/ DEVELOPMENT

1. **CONFORMANCE TO DEVELOPMENT SUBMITTAL.** Granting of this Use Permit establishes the public utility building, structures, and appurtenances thereto, and validates the existing non-conforming use, pursuant to Section 1.1310 of the Zoning Ordinance. Development shall conform with the site plan submitted by Damon S. Williams Associates, LLC and dated September 2004, including the proposed setbacks and buffer zones. These stipulations take precedence over the above-referenced site plan. Any proposed significant change, as determined by the Zoning Administrator, shall be subject to subsequent public hearings before the Planning Commission and City Council.
2. **BUILDING HEIGHT LIMITATIONS.** No building shall exceed twenty eight (28) feet in height measured as defined by the Scottsdale Zoning Ordinance.
3. **ENCLOSURE OF FACILITIES.** All operations shall be conducted indoors or screened from surrounding properties, including fully enclosed pump rooms and chemical storage facilities.
4. **NOISE.** Noise from the facility shall not be audible from the property lines of the surrounding residences.
5. **OUTDOOR LIGHTING.** The maximum height of any building-mounted outdoor lighting source shall be twelve (12) feet above natural grade, except for necessary security and operational lighting. The maximum height of any pole-mounted outdoor lighting source shall be sixteen (16) feet measured at the base of the light standard. All proposed exterior lighting fixtures shall contain full cut-off lenses. A full lighting site plan and a photometric study shall be required with the Development Review Board submittal.
6. **SETBACKS.** There shall be landscaped setback along Miller/Cattletrack Road. Screenwalls, gates, parking, buildings, and tanks shall be located a minimum seventy (70) feet from the Miller/Cattletrack property line established after necessary dedications outlined in Circulation stipulation #1 below.
7. **WALLS AND LANDSCAPED SCREENING.** With the Development Review Board submittal, the applicant shall submit a detailed wall and landscape plan to help screen the proposed facilities from view from the surrounding parcels.
8. **OPEN RURAL CHARACTER.** With the Development Review Board submittal, the applicant shall submit architectural, landscaping, and wall plans having designs consistent with the established open rural character of the area. Driveways onto Miller/Cattletrack Road shall be designed consistent with the open rural character of the area by using alternative pavement methods using desert earth tones and texture, to be approved by the Development Review Board.

### CIRCULATION

1. **STREET CONSTRUCTION.** Before issuance of any certificate of occupancy for the site, the developer shall dedicate the following right-of-way and construct the following street improvements, in conformance with the Design Standards and Policies Manual:

Street Name/Type	Dedications	Improvements	Notes
Miller/ Cattletrack Road/ Minor Collector	30' ROW	Half-street including curb.	None

2. **ACCESS RESTRICTIONS.** Before issuance of any certificate of occupancy for the site, the

developer shall dedicate the necessary right-of-way, as determined by city staff, and construct the following access to the site. Access to the site shall conform to the following restrictions (distances measured to the driveway or street centerlines):

- a. Miller/Cattletrack Road - The developer shall dedicate a one-foot wide vehicular non-access easement on this street except at the approved street entrances.

## **ADDITIONAL INFORMATION FOR CASE 33-UP-2004**

### **PLANNING/DEVELOPMENT**

1. **DEVELOPMENT REVIEW BOARD.** The City Council directs the Development Review Board's attention to:
  - a. Screen wall location and design consistent with the established open rural character of the area;
  - b. Landscaping along the street consistent with the established open rural character of the area;
  - c. Architecture, building materials, and color consistent with the established open rural character of the area;
  - d. The type, height, design, and intensity of proposed lighting on the site, to ensure that it is compatible with the adjacent uses.
2. **NATIVE PLANT PRESERVATION.** The owner shall secure a native plant permit as defined in the Scottsdale Revised Code for each parcel. City staff will work with the owner to designate the extent of the survey required within large areas of proposed undisturbed open space. Where excess plant material is anticipated, those plants shall be offered to the public at no cost to the owner in accordance with state law and permit procedure or may be offered for sale.

### **ENGINEERING**

1. **RESPONSIBILITY FOR CONSTRUCTION OF INFRASTRUCTURE.** The developer shall be responsible for all improvements associated with the development or phase of the development and/or required for access or service to the development or phase of the development. Improvements shall include, but not be limited to washes, storm drains, drainage structures, water systems, sanitary sewer systems, curbs and gutters, paving, sidewalks, streetlights, street signs, and landscaping. The granting of zoning/use permit does not and shall not commit the city to provide any of these improvements.
2. **FEES.** The construction of water and sewer facilities necessary to serve the site shall not be in-lieu of those fees that are applicable at the time building permits are granted. Fees shall include, but not be limited to the water development fee, water resources development fee, water recharge fee, sewer development fee or development tax, water replenishment district charge, pump tax, or any other water, sewer, or effluent fee.
3. **CITY CONTROL OF ACCESS.** The city retains the right to modify or void access within city right-of-way. The city's responsibility to promote safe conditions for the traveling public takes precedence over the stipulations above.

### **DRAINAGE AND FLOOD CONTROL**

1. **CONCEPTUAL DRAINAGE REPORT.** With the Development Review Board submittal, the developer shall submit a conceptual drainage report and plan subject to city staff approval. The conceptual report and plan shall conform to the Design Standards and Policies Manual - Drainage Report Preparation. In addition, the conceptual drainage report and plan shall:
  - a. Identify all major wash corridors entering and exiting the site, and calculate the peak discharge (100-yr, 6-hr storm event) for a pre- versus post-development discharge comparison of ALL washes which exit the property.
  - b. Determine easement dimensions necessary to accommodate design discharges.

- c. Demonstrate how the storm water storage requirement is satisfied, indicating the location, volume and drainage area of all storage.
  - d. Include flood zone information to establish the basis for determining finish floor elevations in conformance with the Scottsdale Revised Code.
  - e. Include a complete description of requirements relating to project phasing.
2. STORM WATER STORAGE REQUIREMENT. Before improvement plan approval, the developer shall submit a final drainage report and plan which calculates the storm water storage volume required,  $V_r$ , and the volume provided,  $V_p$ , using the 100-year, 2-hour storm event.
  3. STORM WATER STORAGE EASEMENTS. With the Development Review Board submittal, the developer shall submit a site plan subject to city staff approval. The site plan shall include and identify tracts with easements dedicated for the purposes of storm water storage, in conformance with the Scottsdale Revised Code and the Design Standards and Policies Manual.
  4. DRAINAGE EASEMENTS. Before the issuance of any building permit for the site, the developer shall dedicate to the city, in conformance with the Scottsdale Revised Code and the Design Standards and Policies Manual, all drainage easements necessary to serve the site.

## OTHER REQUIREMENTS

1. ENVIRONMENTAL PROTECTION AGENCY (EPA) REQUIREMENTS. All construction activities that disturb one or more acres shall obtain coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Construction Activities. [NOI forms are available in the City of Scottsdale One Stop Shop, 7447 East Indian School Road, Suite 100. Contact Region 9 of the U.S. Environmental Protection Agency at 415-744-1500, and the Arizona Department of Environmental Quality at 602-207-4574 or at web site <http://www.epa.gov/region9>.]

The developer shall:

- a. Submit a completed Notice of Intent (NOI) to the EPA.
  - b. Submit a completed Storm Water Pollution Prevention Plan (SWPPP) with the improvement plan submittal to the Development Quality/Compliance Division and to ADEQ.
  - c. Submit a copy of an onsite hazardous waste management and disposal plan approved by the ADEQ and / or the MCESD.
2. NOTICE OF INTENT (NOI). With the improvement plan submittal to the Project Quality/Compliance Division, the developer shall submit a copy of the NOI.
  3. SECTION 404 PERMITS. With the improvement plan submittal to the Project Quality/Compliance Division, the developer' engineer must certify that it complies with, or is exempt from, Section 404 of the Clean Water Act of the United States. [Section 404 regulates the discharge of dredged or fill material into a wetland, lake, (including dry lakes), river, stream (including intermittent streams, ephemeral washes, and arroyos), or other waters of the United States.]

## PROJECT NARRATIVE

### PROJECT BACKGROUND

The United States Environmental Protection Agency (USEPA) has lowered the Arsenic Maximum Contaminant Level (MCL) from 50 parts per billion (ppb) to 10 ppb. All community water systems, such as that operated by Arizona American Water (AAW), are required to comply with the new Arsenic standard by January 2006. To comply with the USEPA mandate, AAW proposes to construct a new 19.3 mgd treatment facility using the coagulation-filtration process to remove naturally occurring arsenic from groundwater. This facility will be used to treat groundwater used to supply AAW's Paradise Valley District.

### SITE DESCRIPTION

The water supply for AAW's Paradise Valley District is distributed through the Miller Road Booster Station (MRBS), which is located east of Cattletrack Road (Miller Road) and approximately a quarter mile north of McDonald Drive. The MRBS site is the proposed location for the Paradise Valley District's arsenic removal facilities. The site, owned by AAW, consists of five parcels that comprise approximately 8 acres of land. Additional detail on these parcels is summarized below:

Parcel Identifier	Parcel No.	Address	Parcel Size, sf	Current Zoning	Proposed Zoning
1	174-13-931	6237 N. Miller Road	134,992	R1-43	No Change
2	174-13-932	6223 N. Miller Road	69,696	R1-43	No Change
3	174-13-934	6215 N. Miller Road	101,495	R1-43 HP	No Change
4	174-13-935	6195 N. Miller Road	39,204	R1-43 HP	No Change

The Paradise Valley Arsenic Removal Facility (PVARF) will be situated on the south side of the property (Parcel 2, Parcel 3, Parcel 4, and a portion of Parcel 1) and will be constructed over approximately 5 acres of the site.

The groundwater for this district is provided by seven wells: three of which are located on the MRBS property and the remaining wells are located within 2-miles of the site. The groundwater from these seven wells will be treated at this site with provisions for the addition of another well in the future. The facilities necessary for treatment, storage and distribution of water include new filtration vessels, treatment chemical storage and feed facilities, backwash clarification structures, finished water reservoirs, booster pumps, and residual solids thickening and dewatering. New administration, customer service, laboratory, and Supervisory Control and Data Acquisition monitoring facilities will be included as part of the project.

### COMMUNITY INVOLVEMENT

AAW has involved the surrounding community in the planning for this project by holding one-on-one meetings with the adjacent property owners and an Open House meeting. Two one-on-one meetings were held with a total of five neighborhood participants. Four citizens attended the Open House meeting. The attendees of these meetings did not voice opposition to the project. They did however

indicate the importance of maintaining the rural character of the property. The neighbors also stated specific considerations which are discussed in the meeting notes and addressed under Project Aesthetics. The outcome of these meetings is detailed in the Citizen Notification and Public Involvement Report included with this Rezoning Application. AAW plans to hold an additional Open House meeting prior to the Planning and Zoning Commission Hearing.

### **PROJECT AESTHETICS**

During the public involvement meetings, the citizens indicated various issues of importance regarding the PVARF that they would like to have considered during the facility design. These issues included impacts on the surrounding community due to noise, odor, traffic and architecture. Each item is discussed in detail in the following paragraphs.

### **SETBACKS**

The required setbacks will be provided from the front, side and rear property boundaries in accordance with the R1-43 zoning requirements (front = 40 feet from property line, side = 20 feet, and rear = 35 feet). The location of the Customer Service Center located along Cattletrack Road will be located an additional 60 feet from the property line providing a total front yard setback of 100 feet.

### **NOISE**

Currently, the well and distributive pumps along with associated valves and instrumentation at the MRBS are located outside. Several neighbors indicated that they can hear the pumps starting. They indicated that the future facilities should have provisions to mitigate noise impacts on the surrounding community. The proposed PVARF will provide fully-enclosed pump rooms which will address the noise impacts expressed by the neighbors.

### **ODOR**

The filtration process used to remove arsenic from the groundwater does not generate odor as a byproduct. The chemical storage and feed facilities that can produce gases under high temperature conditions will be enclosed in an air-conditioned building. This information was discussed with the citizens during the Open House meeting.

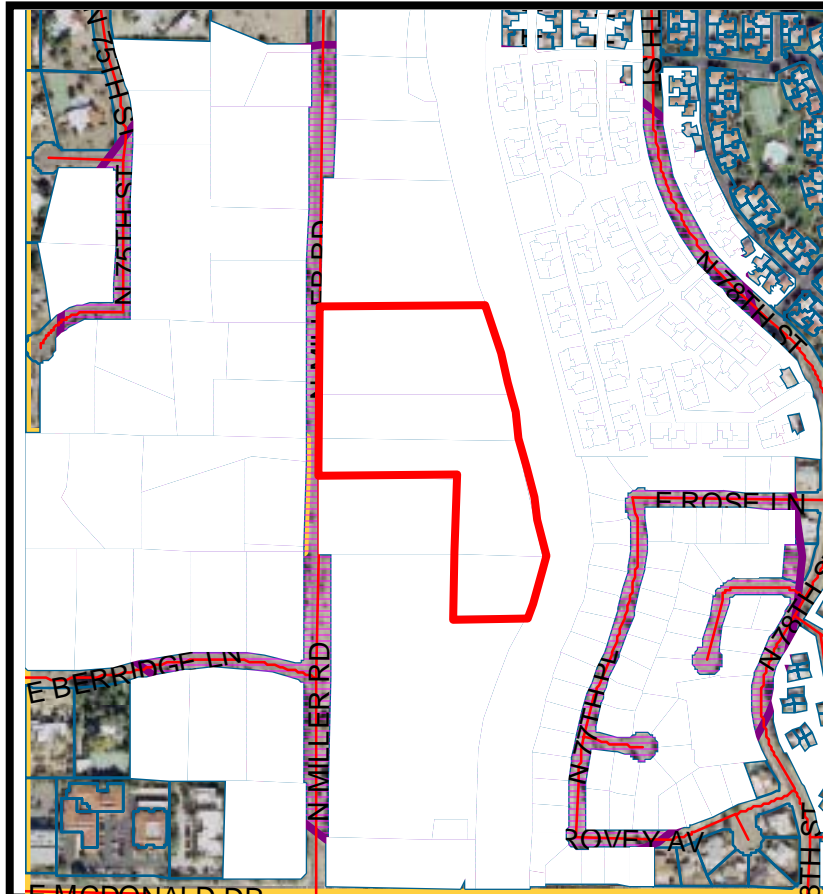
### **TRAFFIC**

Cattletrack Road (Miller Road alignment) is classified as a minor collector between McDonald Drive and Lincoln Drive. It is not identified as a major street on the City's Streets Master Plan. Cattletrack consists of two lanes, one lane in each direction. The intersection of Cattletrack and McDonald Drive has a traffic signal.

A traffic study conducted by Scottsdale Engineering & Associates, Inc. indicated that the daily traffic volume along Cattletrack Road (Miller Road alignment) was 1,836 vehicles. The average speed of the vehicles measured was 33 miles per hour (mph); the 85<sup>th</sup> percentile speed was 40 mph. The study indicates that these volumes and speeds are consistent with a local collector street. Typically, minor collector streets are designed to accommodate traffic volumes of at least 5,000 vehicles per day. There are residential driveways along Cattletrack which are limited in number due to the large lot sizes present in this area.

The traffic volume due to the PVARF will show a modest increase over the current operations due to increased operator attendance at the site, bulk chemical deliveries, and liquid sludge hauling. The estimated traffic volume is shown in the following table:

# City Notifications – Mailing List Selection Map



## Map Legend:



Site Boundary



Properties within 750-feet

## Additional Notifications:

- Interested Parties
- Adjacent HOA
- South Scottsdale  
Redevelopment Force

Q.S.  
21-46

Labels pulled 10/28/04



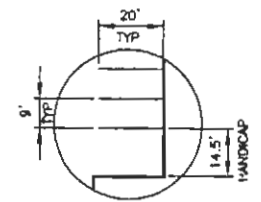
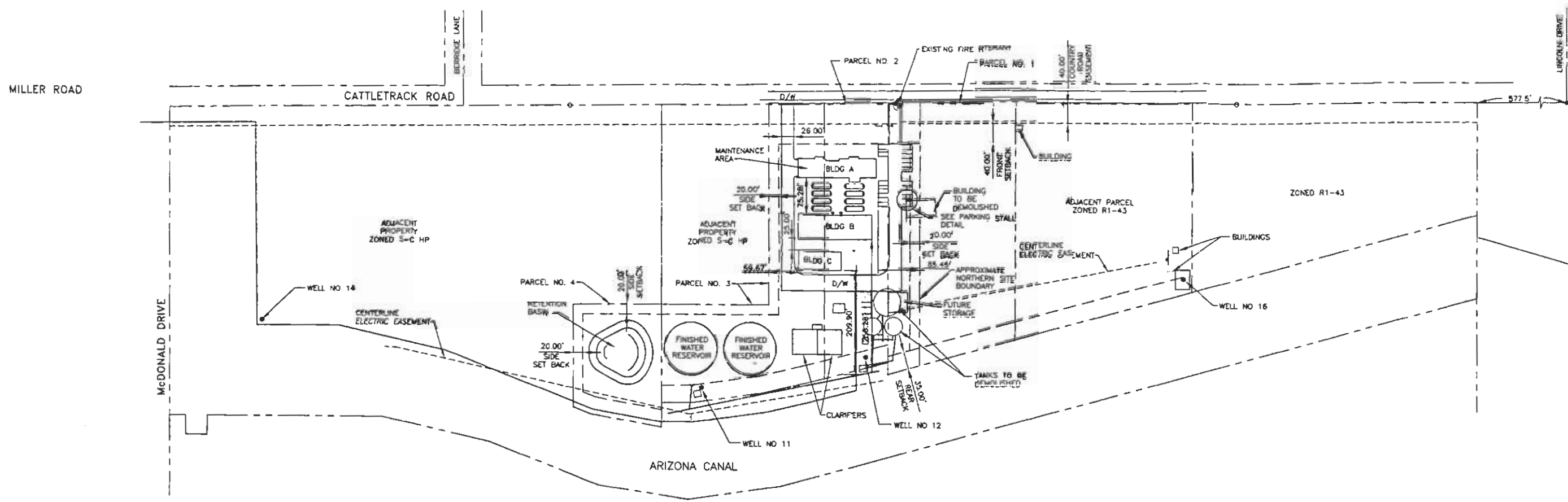
**Paradise Valley Arsenic Removal  
Facility & Administrative**

**33-UP-2004**

ATTACHMENT #8



WELL NO 17



PARKING STALL DETAIL

PARCEL DATA

PARCEL NO.	APN	CURRENT ZONING	PROPOSED ZONING	ACREAGE
1	174-13-931	RT-43	NO CHANGE	1.099
2	174-13-932	RT-43	NO CHANGE	1.5
3	174-13-934	RT-43 HP	NO CHANGE	2.39
4	174-13-935	RT-43 HP	NO CHANGE	0.90

STRUCTURES

DESC	DIMENSION FT. x FT.	GROSS FLOOR AREA, SF	GROSS HEIGHT, FT.	PROPOSED USE
BLDG A	160 x 35	5,600	18	ADMINISTRATION, CUSTOMER SERVICE, LAB
BLDG B	150 x 48	7,200	18	GROUNDS STORAGE / FEED, PUMP ROOM
BLDG C	90 x 35	3,150	28	SOLIDS HANDLING, STANDBY POWER
BLDG TOTAL		15,950		
RESERVOIRS	109 FT DIA	17,984	28	WATER STORAGE
CLARIFIERS	55 FT DIA	4,752	4	SETTLING
PROCESS TOTAL		22,736		

PROJECT DATA

PREAPPLICATION NUMBER: 239-PA-2004  
 LOCATION:  
 6215 NORTH MILLER ROAD  
 SCOTTSDALE, ARIZONA  
 OWNER:  
 ARIZONA AMERICAN WATER  
 19820 NORTH 7TH STREET  
 PHOENIX, ARIZONA 85026  
 ZONING:  
 CURRENT: RT-43 HP (PARCEL NOS 3 & 4)  
 SITE AREA (INCLUDES 0.88 AC OF PARCEL NO. 1)  
 GROSS: 247,856 SF  
 NET: 193,731 SF  
 PARKING SPACES  
 REQUIRED: 1, 2 (BLDG A ONLY)  
 PROVIDED: 17, 1 HANDICAP  
 OPEN SPACE  
 REQUIRED: 53,238.85 SF  
 PROVIDED: 129,095 SF

LEGEND

- PROPERTY LINE
- CENTER LINE OF ROADWAY
- EASEMENT LINE
- SETBACK LINE

ATTACHMENT #9

33-UP-2004  
 10-28-04

REVISIONS	PARADISE VALLEY ARSENIC REMOVAL FACILITY CIVIL SITE PLAN	
	ARIZONA AMERICAN WATER COMPANY PARADISE VALLEY DISTRICT	
	DAMON E. WILLIAMS ASSOCIATES, LLC 2355 EAST CAMELBACK ROAD, SUITE 700 PHOENIX, ARIZONA 85016 <b>DSWA</b>	
	DRAWN BY: ELC PROJECT ENGINEER: CHC APPROVED: RRV	DATE: SEPTEMBER 2004 PROJECT: 23640001 USE DIMENSIONS ONLY SCALE: N/A
USE APPROVED DRAWINGS ONLY FOR CONSTRUCTION PURPOSES		2302-0001-SP01